



[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)

Search: ☒ The ACM Digital Library ☐ The Guide

[combine high resolution and high resolution and common pixel](#)



THE ACM DIGITAL LIBRARY



[Feedback](#) [Report a problem](#) [Satisfaction survey](#)

Terms used

combine high resolution and high resolution and common pixel and display apparatus

Found **68,745** of
195,947

Sort results
by

relevance



[Save results to a Binder](#)

[Try an Advanced Search](#)

[Try this search in The ACM Guide](#)

Display
results

expanded form



[Search Tips](#)

☐ [Open results in a new window](#)

Results 1 - 20 of 200

Result page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)

Best 200 shown

Relevance scale ☐ ☐ ☐ ☐ ☐

1 [High dynamic range imaging](#)



Paul Debevec, Erik Reinhard, Greg Ward, Sumanta Pattanaik

August 2004 **ACM SIGGRAPH 2004 Course Notes SIGGRAPH '04**

Publisher: ACM Press

Full text available: [pdf\(20.22 MB\)](#) Additional Information: [full citation](#), [abstract](#)

Current display devices can display only a limited range of contrast and colors, which is one of the main reasons that most image acquisition, processing, and display techniques use no more than eight bits per color channel. This course outlines recent advances in high-dynamic-range imaging, from capture to display, that remove this restriction, thereby enabling images to represent the color gamut and dynamic range of the original scene rather than the limited subspace imposed by current monitor ...

2 [Displays: Increased display size and resolution improve task performance in Information-Rich Virtual Environments](#)

Tao Ni, Doug A. Bowman, Jian Chen

June 2006 **Proceedings of the 2006 conference on Graphics interface GI '06**

Publisher: Canadian Information Processing Society

Full text available: [pdf\(520.90 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Physically large-size high-resolution displays have been widely applied in various fields. There is a lack of research, however, that demonstrates empirically how users benefit from the increased size and resolution afforded by emerging technologies. We designed a controlled experiment to evaluate the individual and combined effects of display size and resolution on task performance in an *Information-Rich Virtual Environment* (IRVE). We also explored how a wayfinding aid would facilitate s ...

Keywords: Information-Rich Virtual Environment (IRVE), experiment, field of view, large high-resolution displays, user study, wayfinding aid

3 [Realistic materials in computer graphics: Realistic materials in computer graphics](#)




Hendrik P. A. Lensch, Michael Goesele, Yung-Yu Chuang, Tim Hawkins, Steve Marschner, Wojciech Matusik, Gerö Mueller

July 2005 **ACM SIGGRAPH 2005 Courses SIGGRAPH '05**


Publisher: ACM Press

Full text available:  [pdf\(18.24 MB\)](#) Additional Information: [full citation](#), [references](#)

4 Papers: Off the wall: Fluid interaction with high-resolution wall-size displays 

 François Guimbretière, Maureen Stone, Terry Winograd
November 2001 **Proceedings of the 14th annual ACM symposium on User interface software and technology UIST '01**

Publisher: ACM Press

Full text available:  [pdf\(1.34 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This paper describes new interaction techniques for direct pen-based interaction on the Interactive Mural, a large (6'x3.5') high resolution (64 dpi) display. They have been tested in a digital brainstorming tool that has been used by groups of professional product designers. Our "interactive wall" metaphor for interaction has been guided by several goals: to support both free-hand sketching and high-resolution materials, such as images, 3D models and GUI application windows; to pres ...

Keywords: FlowMenu, Large displays, interactive wall

5 Level set and PDE methods for computer graphics 

 David Breen, Ron Fedkiw, Ken Museth, Stanley Osher, Guillermo Sapiro, Ross Whitaker
August 2004 **ACM SIGGRAPH 2004 Course Notes SIGGRAPH '04**

Publisher: ACM Press

Full text available:  [pdf\(17.07 MB\)](#) Additional Information: [full citation](#), [abstract](#), [citations](#)

Level set methods, an important class of partial differential equation (PDE) methods, define dynamic surfaces implicitly as the level set (iso-surface) of a sampled, evolving nD function. The course begins with preparatory material that introduces the concept of using partial differential equations to solve problems in computer graphics, geometric modeling and computer vision. This will include the structure and behavior of several different types of differential equations, e.g. the level set eq ...


6 Projectors: advanced graphics and vision techniques 

 Ramesh Raskar
August 2004 **ACM SIGGRAPH 2004 Course Notes SIGGRAPH '04**


Publisher: ACM Press

Full text available:  [pdf\(6.53 MB\)](#) Additional Information: [full citation](#)

7 Pointing: Distant freehand pointing and clicking on very large, high resolution displays 

 Daniel Vogel, Ravin Balakrishnan
October 2005 **Proceedings of the 18th annual ACM symposium on User interface software and technology UIST '05**

Publisher: ACM Press

Full text available:  [pdf\(953.78 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We explore the design space of freehand pointing and clicking interaction with very large high resolution displays from a distance. Three techniques for gestural pointing and two for clicking are developed and evaluated. In addition, we present subtle auditory and visual feedback techniques to compensate for the lack of kinesthetic feedback in freehand interaction, and to promote learning and use of appropriate postures.


Keywords: freehand gestures, pointing, very large displays, whole hand interaction

8 Papers: Off the wall: Focus plus context screens: combining display technology with visualization techniques

Patrick Baudisch, Nathaniel Good, Paul Stewart

November 2001 **Proceedings of the 14th annual ACM symposium on User interface software and technology UIST '01**

Publisher: ACM Press

Full text available:  pdf(1.39 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Computer users working with large visual documents, such as large layouts, blueprints, or maps perform tasks that require them to simultaneously access overview information while working on details. To avoid the need for zooming, users currently have to choose between using a sufficiently large screen or applying appropriate visualization techniques. Currently available hi-res "wall-size" screens, however, are cost-intensive, space-intensive, or both. Visualization techniques allow the user to m ...

Keywords: Display, fisheye view, focus plus context screen, mixed resolution, overview plus detail, video projector

9 3D TV: a scalable system for real-time acquisition, transmission, and autostereoscopic display of dynamic scenes


Wojciech Matusik, Hanspeter Pfister

August 2004 **ACM Transactions on Graphics (TOG) , ACM SIGGRAPH 2004 Papers SIGGRAPH '04**, Volume 23 Issue 3

Publisher: ACM Press

Full text available:  pdf(788.24 KB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

 mov(21:13 MIN)

Three-dimensional TV is expected to be the next revolution in the history of television. We implemented a 3D TV prototype system with real-time acquisition, transmission, and 3D display of dynamic scenes. We developed a distributed, scalable architecture to manage the high computation and bandwidth demands. Our system consists of an array of cameras, clusters of network-connected PCs, and a multi-projector 3D display. Multiple video streams are individually encoded and sent over a broadband netw ...

Keywords: Autostereoscopic displays, camera arrays, image-based rendering, lightfields, multiview displays, projector arrays

10 Reaching for objects in VR displays: lag and frame rate

Colin Ware, Ravin Balakrishnan

December 1994 **ACM Transactions on Computer-Human Interaction (TOCHI)**, Volume 1 Issue 4

Publisher: ACM Press

Full text available:  pdf(1.54 MB)

Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

This article reports the results from three experimental studies of reaching behavior in a head-coupled stereo display system with a hand-tracking subsystem for object selection. It is found that lag in the head-tracking system is relatively unimportant in predicting performance, whereas lag in the hand-tracking system is critical. The effect of hand lag can be modeled by means of a variation on Fitts' Law with the measured system lag introduced as a multiplicative variable to the Fitts' La ...

Keywords: Fitts' Law, Haptics, virtual reality

11 Fast detection of communication patterns in distributed executions

Thomas Kunz, Michiel F. H. Seuren

November 1997 **Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research CASCON '97**

Publisher: IBM Press

Full text available:  pdf(4.21 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Understanding distributed applications is a tedious and difficult task. Visualizations based on process-time diagrams are often used to obtain a better understanding of the execution of the application. The visualization tool we use is Poet, an event tracer developed at the University of Waterloo. However, these diagrams are often very complex and do not provide the user with the desired overview of the application. In our experience, such tools display repeated occurrences of non-trivial commun ...

12 Exploiting perception in high-fidelity virtual environments: Exploiting perception in high-fidelity virtual environments



Additional presentations from the 24th course are available on the citation page

Mashhuda Glencross, Alan G. Chalmers, Ming C. Lin, Miguel A. Otaduy, Diego Gutierrez
July 2006 **ACM SIGGRAPH 2006 Courses SIGGRAPH '06**

Publisher: ACM Press

Full text available:  pdf(5.07 MB)  mov(68:6 MIN) Additional Information: [full citation](#), [abstract](#), [references](#)

The objective of this course is to provide an introduction to the issues that must be considered when building high-fidelity 3D engaging shared virtual environments. The principles of human perception guide important development of algorithms and techniques in collaboration, graphical, auditory, and haptic rendering. We aim to show how human perception is exploited to achieve realism in high fidelity environments within the constraints of available finite computational resources. In this course w ...

Keywords: collaborative environments, haptics, high-fidelity rendering, human-computer interaction, multi-user, networked applications, perception, virtual reality


13 Salient stills



Laura Teodosio, Walter Bender

February 2005 **ACM Transactions on Multimedia Computing, Communications, and Applications (TOMCCAP)**, Volume 1 Issue 1

Publisher: ACM Press

Full text available:  pdf(31.14 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Salient Stills are a class of images that reflect the aggregation of the temporal changes that occur in a moving-image sequence with the salient features of individual frames preserved. They convey the intended expression of an entire series of moving frames---a visual summary of camera and object movements. The original frames, which may include variations in focal length or field of view, or moving objects, are combined to create a single still image. The still image may have multiresolution p ...

Keywords: Salient stills, media transcoding, semantic image processing, shape-time photography, synopsis mosaic, timeprints, video database, video mosaic, video summary

14 Quasi-linear depth buffers with variable resolution



Eugene Lapidous, Guofang Jiao, Jianbo Zhang, Timothy Wilson

August 2001 **Proceedings of the ACM SIGGRAPH/EUROGRAPHICS workshop on Graphics hardware HWWS '01**

Publisher: ACM Press

Full text available: pdf(98.14 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper we present new class of variable-resolution depth buffers, providing a flexible trade-off between depth precision in the distant areas of the view volume and performance. These depth buffers can be implemented using linear or quasi-linear mapping function of the distance to the camera to the depth in the screen space. In particular, the complementary Z buffer algorithm combines simplicity of implementation with significant bandwidth savings.

A variable-resolution depth b ...

Keywords: W buffer, Z buffer, complementary Z, depth precision, screen Z

15 Displays: Evaluation of viewport size and curvature of large, high-resolution displays

Lauren Shupp, Robert Ball, Beth Yost, John Booker, Chris North

June 2006 **Proceedings of the 2006 conference on Graphics interface GI '06**

Publisher: Canadian Information Processing Society

Full text available: pdf(537.15 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Tiling multiple monitors to increase the amount of screen space has become an area of great interest to researchers. While previous research has shown user performance benefits when tiling multiple monitors, little research has analyzed whether much larger high-resolution displays result in better user performance. We compared user performance time, accuracy, and mental workload on multi-scale geospatial search, route tracing, and comparison tasks across one, twelve (4x3), and twenty-four (8x3) ...

Keywords: curvature, geospatial, high-resolution, large tiled display, reconfigurable display, viewport size

16 Research directions in virtual environments: report of an NSF Invitational Workshop.



March 23-24, 1992, University of North Carolina at Chapel Hill

Gary Bishop, Henry Fuchs

August 1992 **ACM SIGGRAPH Computer Graphics**, Volume 26 Issue 3

Publisher: ACM Press

Full text available: pdf(2.33 MB) Additional Information: [full citation](#), [citations](#), [index terms](#)

17 Late breaking results: short papers: Effects of tiled high-resolution display on basic visualization and navigation tasks



Robert Ball, Chris North

April 2005 **CHI '05 extended abstracts on Human factors in computing systems CHI '05**

Publisher: ACM Press

Full text available: pdf(201.01 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Large high-resolution screens are becoming increasingly available and less expensive.

This creates potential advantages for data visualization in that more dense data and fine details are viewable at once. Also, less navigation may be needed to see more data. However, little work has been done to determine the effectiveness of large high-resolution displays, especially for basic low-level data visualization and navigation tasks. This paper describes an exploratory study on the effects of a large ...

Keywords: high-resolution display, information visualization

18 Special issue on knowledge representation



Ronald J. Brachman, Brian C. Smith
February 1980 **ACM SIGART Bulletin**, Issue 70

Publisher: ACM Press

Full text available: [pdf\(13.13 MB\)](#) Additional Information: [full citation](#), [abstract](#), [citations](#)

In the fall of 1978 we decided to produce a special issue of the SIGART Newsletter devoted to a survey of current knowledge representation research. We felt that there were two useful functions such an issue could serve. First, we hoped to elicit a clear picture of how people working in this subdiscipline understand knowledge representation research, to illuminate the issues on which current research is focused, and to catalogue what approaches and techniques are currently being developed. Second ...

19 A SMART scheduler for multimedia applications



Jason Nieh, Monica S. Lam
May 2003 **ACM Transactions on Computer Systems (TOCS)**, Volume 21 Issue 2

Publisher: ACM Press

Full text available: [pdf\(570.87 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Real-time applications such as multimedia audio and video are increasingly populating the workstation desktop. To support the execution of these applications in conjunction with traditional non-real-time applications, we have created SMART, a Scheduler for Multimedia And Real-Time applications. SMART supports applications with time constraints, and provides dynamic feedback to applications to allow them to adapt to the current load. In addition, the support for real-time applications is integrated ...

Keywords: Scheduling, multimedia, proportional sharing, real-time

20 GPGPU: general purpose computation on graphics hardware



David Luebke, Mark Harris, Jens Krüger, Tim Purcell, Naga Govindaraju, Ian Buck, Cliff Woolley, Aaron Lefohn
August 2004 **ACM SIGGRAPH 2004 Course Notes SIGGRAPH '04**

Publisher: ACM Press

Full text available: [pdf\(63.03 MB\)](#) Additional Information: [full citation](#), [abstract](#), [citations](#)

The graphics processor (GPU) on today's commodity video cards has evolved into an extremely powerful and flexible processor. The latest graphics architectures provide tremendous memory bandwidth and computational horsepower, with fully programmable vertex and pixel processing units that support vector operations up to full IEEE floating point precision. High level languages have emerged for graphics hardware, making this computational power accessible. Architecturally, GPUs are highly parallel ...

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads:  [Adobe Acrobat](#)  [QuickTime](#)  [Windows Media Player](#)  [Real Player](#)



Welcome United States Patent and Trademark Office

[Search Session History](#)[BROWSE](#)[SEARCH](#)[IEEE XPLORE GUIDE](#)

Edit an existing query or
compose a new query in the
Search Query Display.

Tue, 23 Jan 2007, 3:38:35 PM EST

Search Query Display



Select a search number (#)
to:

- Add a query to the Search Query Display
- Combine search queries using AND, OR, or NOT
- Delete a search
- Run a search

Recent Search Queries

#1 ((combine common pixel format low resolution wide field of view
and high resolution narrow of view)<in>metadata)

#2 ((mix resolution image<in>metadata) <and> (low resolution
wide field of view<in>metadata))<and> (high resolution narrow
field of view image<in>metadata)



Indexed by
 Inspect®

[Help](#) [Contact Us](#) [Privacy &](#)

© Copyright 2006 IEEE -